

Work Order ID 150399

Wednesday, August 24, 2016 11:51:08 AM

150399

Page 1

Item ID: D3637-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bracket Assembly
Start Date: 8/16/2016 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 8/24/2016 Req'd Qty: 8.00 ***8*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **AUG 29 2016** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3637	Rev B								

100 FLOW WATER JET 0.00
100
Waterjet Memo 0.15 **(8)** 16/09/01
FLOW CNC Waterjet 1-Cut as per Dwg D3637 Dwg Rev: B Prog Rev: B 2-
Debur if necessary

110 QC2- Inspect parts off machine FAI/FAIB 0.00
110
QC Memo 0.01 **(8)** 16/09/01
Quality Control

120 QC8- Inspect parts - second check 0.00
120
QC Memo 0.03 **(8)** 16-09-02
Quality Control **DAS 32 9-89**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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Page 2

Item ID: D3637-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket Assembly

Start Date: 8/16/2016 Start Qty: 8.00

8

Cust Item ID:

Required Date: 8/24/2016 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	NC BRAKE	0.04			DAS 30 9-89	(8)			SEP 28 2016 SEP 06 2016
130	Brake NC	Memo							
	Brake NC	Form as per Dwg D3637							
140	Small Fab	0.00				8x			DAS 36 9-89 16/10/21
140	Small Fab	Memo							
	Small Fab	1- drill holes as per dwg using DT89792-C'Sink as per Dwg D3637 3- Install Nut plate as per Dwg D3637							
150	QC5- Inspect part completeness to step on W/O	0.00				(8)			DAS 38 9-89 OCT 24 2016
150	QC	Memo							
	Quality Control								

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WORK ORDER NON-CONFORMANCE / UPDATE



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>St234A</u>	0.00							
160									
Packaging	Memo	0.01				<u>8</u>	<u>OCT 24 2016</u>		<u>DAS</u> <u>6</u> <u>9-89</u>
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.13							<u>16/10/25</u>
Quality Control									

DAS
21
9-89

OCT 25 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Picklist Print

Wednesday, August 24, 2016 11:51:07 AM

Page 1

Work Order ID: 150399

150399

Parent Item: D3637-041

D3637-041

Parent Item Name: Bracket Assembly

Start Date: 8/16/2016

Required Date: 8/24/2016

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP Rev:A New Issue 07-07-20 JLM Verified By:EC
IPP Rev:B change to REV.B as per dwg 08-02-11 DD verified by:ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S14GA		Purchased	No			140	sf	32.6158	0.09	0.757895			
-----------	--	-----------	----	--	--	-----	----	---------	------	----------	--	--	--

M304S14GA

304SS sheet .080

pc 16/09/01

Location	Loc Qty	Loc Code
MAT019	20.8	
M129972	5.7	
M135061	15.1	
TPI	11.815791	
M134604	11.815791	

MS20426AD3-3		Purchased	No			100	Each	6,580.000	2	16			
--------------	--	-----------	----	--	--	-----	------	-----------	---	----	--	--	--

MS20426AD3-3

RIVET

16/10/21 DAS 36 9-89

Location	Loc Qty	Loc Code
fg108	400	
M135354	400	
GA	44	
M131624	44	
ST312	6136	
M135274	6136	

MS21059L4		Purchased	No			140	Each	32.0000	1	8			
-----------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

MS21059L4

Nutplate

16/10/21 DAS 36 9-89

Location	Loc Qty	Loc Code
OVER007	12	
m135133	12	
ST301	20	
m135274	20	

135274 (70)

8

DQA: _____ Date: _____

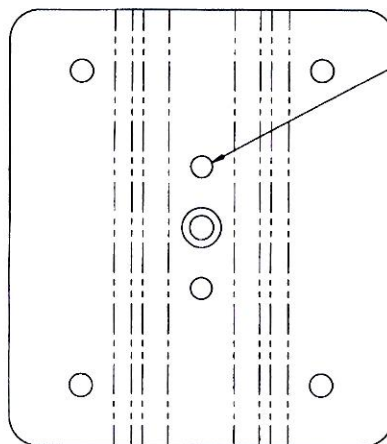
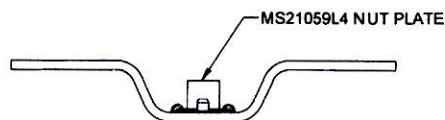


WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
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Misidentified ☐	Past Due ☐																																																														

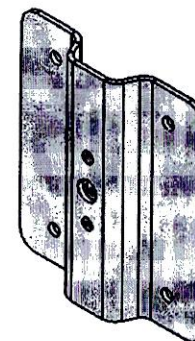


MS20426AD3-3 RIVET
(2 PLACES)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

NO. 150399 MJS
16 08 29



D3637-041 BRACKET ASSEMBLY
(WAS GENEVA P/N G10602-1)

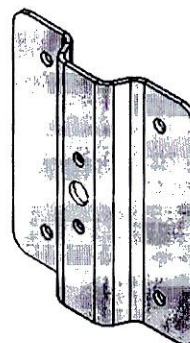
D3637-041 PARTS:

QTY	P/N	DESCRIPTION
X	D3637-041	BRACKET ASSEMBLY
1	D3637-1	BRACKET
1	MS21059L4	NUTPLATE
2	MS20426AD3-3	RIVET

D3637-041 NOTES:

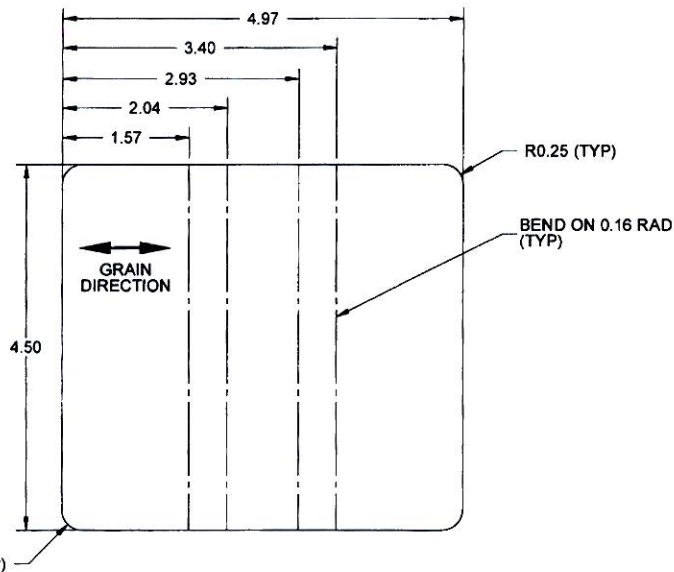
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: N/A
- 4) UNITS: N/A
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3637-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.27 lbs

B	FOR D3637-1, 1 15 WAS 1.30 & 'REF' REMOVED FROM ANGLE	LE	07.12.18
A	NEW ISSUE; REPLACES G10608, G10602 & G10609	LE	07.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	TS		
DRAWN	LE		
CHECKED	EP		
MFG. APPR.	EP		
APPROVED	EP		
DE APPR.	EP		
DATE	07.12.18		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3637 TITLE BRACKET SCALE 1:1 REV. B SHEET 1 OF 3 COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRINTED AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

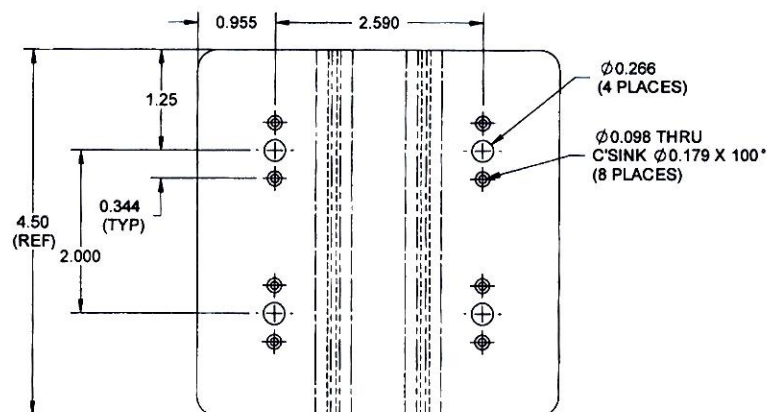
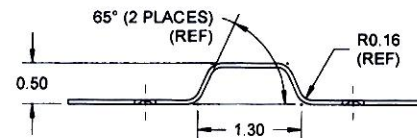


Q38377 Q31255
1) MATERIAL: AISI 304/316 SS SHEET, 14 GAUGE PER MIL-S-5059
(REF DART SPEC M304S14GA)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.26 lbs

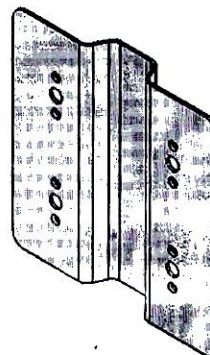
DESIGN	TS 	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3637	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	1:1
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D3637-3F FLAT PATTERN



**D3637-3 BRACKET
(WAS GENEVA P/N G10609-1)**



D3637-3 NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM 0.050 THICK PER QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.050)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3637-3" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.32 lbs

DESIGN	TS	DART AEROSPACE LTD	
DRAWN	LE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	ED	D3637	SHEET 3 OF 3
APPROVED	W	TITLE	SCALE
DE APPR.	W	BRACKET	2:3
DATE	07.12.18	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
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